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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,012	02/04/2002	John P. Graham	RWBP101US	4118
29393	7590	09/21/2004	EXAMINER	
ESCHWEILER & ASSOCIATES, LLC NATIONAL CITY BANK BUILDING 629 EUCLID AVE., SUITE 1210 CLEVELAND, OH 44114			COCKS, JOSIAH C	
			ART UNIT	PAPER NUMBER
			3749	

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/067,012

Applicant(s)

GRAHAM ET AL.

Examiner

Josiah Cocks

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 6/4/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, and 23 is/are rejected.
- 7) ☒ Claim(s) 3-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/04/2002
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. Receipt of the amendment filed 6/4/2004 is acknowledged.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Lourigan* (US # 3,906,294) in view of *Nakamura et al.* (US # 4,544,349).

*Lourigan* discloses in Figures 1-6 a time delayed solenoid valve that is intended to be used in an oil burner system (see col. 1, lines 6-15). The valve includes a controller with a timer circuit that includes an electric cord set coupled between the controller and the valve (see Fig. 1). The timer circuit of *Lourigan* operates in a substantially similar manner as that of applicant in that the timer circuit in that it is operated on a half wave rectified current and is independent of voltage and temperature such that it is not affected by line voltage discrepancies (see col. 2, lines 6-17 and col. 3, lines 41-64). *Lourigan* also discloses that it is understood in the art that the valve operates a predetermined time after a call for ignition (see col. 1, lines 7-15).

The examiner considers that the solenoid housing package (60) is properly considered to be a component of an electric cord set in conjunction with the circuit shown in Figure 1. The timer circuit is mounted to the valve housing (62) portion via a circuit board (74) and the assembly is arranged between the valve (63) and the controller (see col. 3, lines 15-38). This structure is considered to meet the limitations of applicant's claims.

In regard to claim 2, *Lourigan* discloses a bridge circuit/diode (30) that functions to produce a rectified potential, an associated switch (12), and a substantially voltage independent trigger circuit (34) that receives an ignition signal and produces an output signal to close the switch for a predetermined amount of time wherein the predetermined time period is substantially independent in variations in line voltage supplied to the burner (see col. 4, lines 12-15).

*Lourigan* possibly does not disclose the use of a pump associated with the valve and the activation of a motor, pump, and ignition device concurrently. However, *Nakamura et al.* is cited to show that it is well understood in the oil burner art that a solenoid valve may be associated

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with a pump (see *Nakamura et al.*, col. 4, lines 46-54) and the pump, a motor (76) and ignition device operate concurrently (see *Nakamura et al.*, col. 4, line 60 through col. 5, line 33).

Therefore, in regard to claims 1, 2, and 23, it would have been obvious to a person of ordinary skill in the art at the time the invention was made that the oil burner system that *Lourigan* would include a pump and concurrent motor, pump and ignition device operation as taught in *Lourigan* as it is well understood that a solenoid valve and solenoid operated pump are equivalent for controlling the flow of fuel oil to a oil burner, and a motor, pump, and ignition device operate concurrently to control the valve to activate and extinguish a flame.

#### ***Allowable Subject Matter***

5. Claims 3-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

6. Applicant's arguments filed 6/4/2004 have been fully considered but, as pertains to claims 1, 2, and new claim 23, these arguments are not persuasive. As noted above, the examiner considers that the structural limitations of the oil burner system recite in claim 1 and the circuit components in claims 2 and 23 are present in the prior art of record. Applicant's arguments as to the structural distinction of the circuit components of claims 3-12 are considered persuasive and have been indicated to contain allowable subject matter.

### **Conclusion**

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is (703) 305-0450. The examiner can normally be reached on weekdays from 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus, can be reached at (703) 308-1935. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

jcc  
September 16, 2004



**JOSIAH COCKS**  
**PRIMARY EXAMINER**  
**ART UNIT 3749**